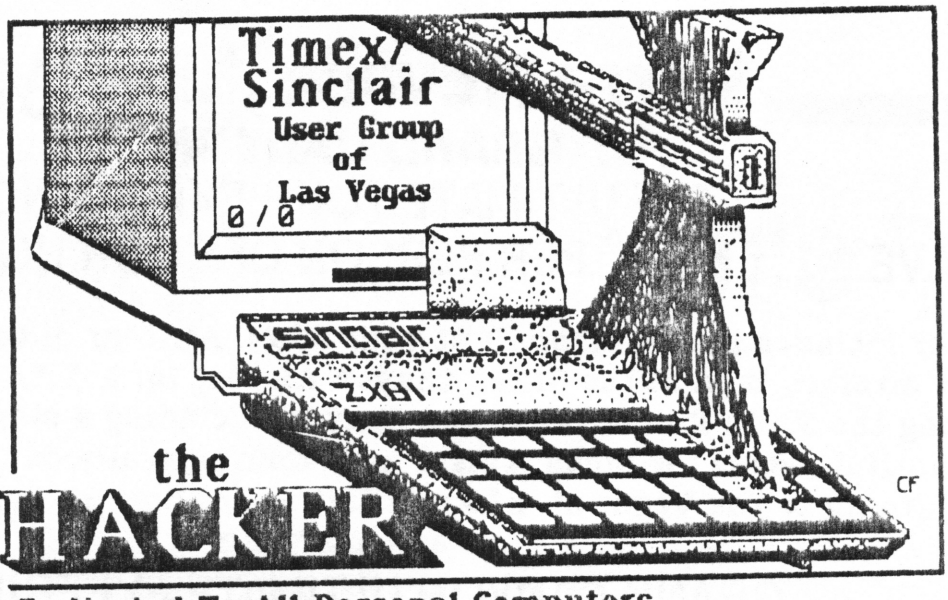
Sept. 1990



the HACKER

Newsletter Dedicated To All Personal Computers

"the HACKER" is an official publication of the Timex/Sinclair User Group of Las Vegas-a non profit, educational organization. Subscription to the "HACKER" is $15.00 per year (12 issues) and includes membership to TSUG of LV. Please remit to:

Ralph Hammer(treasurer)
2105 Oakwood Ave.
Las Vegas, NV 89030

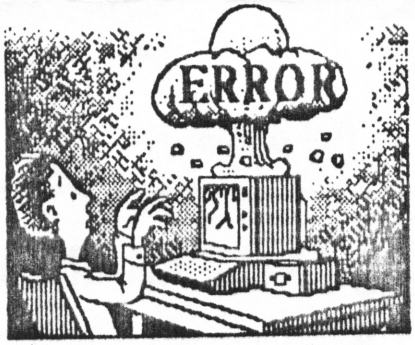
MEMO

LET'S GET TOGETHER
Sept. 16, 1990------1-3 pm
PC-SIG----------3-4 pm
the public is WELCOME

CONTRIBUTING STAFF:
STEVE SAWCHUK-----EDITOR IN CHIEF
RALPH HAMMER-------CO-EDITOR
CHRIS FENN---------- ART DIRECTOR
DAWN SAWCHUK-----MAILING DIR.

WHAT'S INSIDE

POSTAGE INCREASE----------PAGE 2
TIMELY BITS OF NEWS----------PAGE 3
NEW USER GROUP FORMED------PAGE 8
THE HONEST TRUTH---------- PAGE 10
MYSTERY PROGRAM----------PAGE 12



Last months article about the MC400 that was supplied by Chris Fenn was very informative. However when it was inserted into the DTP program that is used for this newsletter, an important sentence was missed and sounded confusing. The editor didn't catch it in time. So, to unravel the "What did he say" mystery, the missing **sentence** will be inserted and hope to clear up the confusion.

"that they are all competing for CPU time; and the active window gets the lion's share. I'm surprised at how much the 7.68 MHZ 80C86 can keep juggling as the 8086 is not considered a "screamer" by any means" Did that clear things up? Sorry about that Chris.

Sierra Nevada Airways SNA

GRAND CANYON

THE ULTIMATE TOUR EXPERIENCE

SAVE **$50.00** PER PERSON OFF OUR NORMAL PRICE

Tour includes pickup/dropoff at your hotel. Air tour of Grand Canyon aboard our aircraft, land at the Grand Canyon Airport for a 3 1/2 hour land tour along the South Rim of the Grand Canyon, including a stop at one of the beautiful lodges for lunch. This 6 hour tour normally departs at 10:30 am returning to Las Vegas at 4:30 pm. Call us anytime 24 hours per day to arrange your

GRAND CANYON ULTIMATE EXPERIENCE

VISA **736-6770** MasterCard

Reg. Price $155.00 pp

No Expiration Date

Mention the "HACKER"

NOT AGAIN !!!!

Well, this time the Postal Dept is not witholding any punches on the public. They have come out and reported that the cost of a stamp will go up a **nickel** and will be laying off 16,000 workers. the workers will be replaced by automation devices, which in turn will delay some deliveries (nothing new).

The prices are to go into effect after the **first of the year**. the proposed price of a one ounce letter will increase to **30 cents**. So, you can expect to here a lot of grumblings about the higher cost of mail deliveries and the slow service. Just remember, that's the cost of automation. High prices and robots go together. Sometimes I think the **Pony Express** was better .

Order Now! Then Watch Your Mail!

THAT'S RIGHT!

Now you can get the RMG CATALOG on LKDOS DISK in TASWORD 2 files. This format for the 2068 will be the only format available and at the same old price of only:

$3.00 PP

AND THERE'S MORE!!!

We now offer our monthly mailers on the same format disk! Keep up with what's new, used equipment and SUPER BUYS! AS AN EXTRA BONUS YOU WILL GET AT LEAST 3 PUBLIC DOMAIN S/W ITEMS FOR THE LKDOS SYSTEM PER YEAR! This alone is worth more than the $12 per year subscription price!

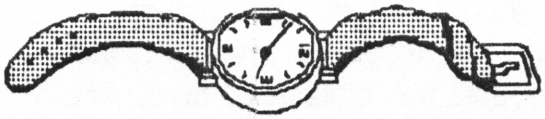
(COUPONS INCLUDED WITH BOTH PACKS)

RMG ENTERPRISES

1419 1/2 7TH STREET

OREGON CITY, OREGON 97045

503/655-7484 * NOON-10 TUE-SAT



TIMELY BITS OF NEWS FROM AROUND THE WORLD & OTHER PLACES

SHARP TO SHIP DESKTOP IMAGE PROCESSOR AT AGGRESSIVE PRICE

-- Sharp Digital Information Products will begin shipping its new desktop image processor this month as a cost that will make it available to systems integrators for what the company says is roughly one- third the cost of competing products.

In announcing the shipping time and product price, Sharp's Digital Information Products' Director of Image Processing Marketing **John Lewis** said that OEMs (original equipment manufacturers) can get started with Sharp's core board for around **$3,000,** the single-quantity price. He added: "Our aggressive pricing and the core-board's compact size will bring image processing to a potentially vast audience."

The Sharp Image Processor features specially designed VLSI (very large scale integration) chips that is said to mimic the human vision recognition system. These chips support varied personal computer desktop imaging applications at speeds of **700 MIPS** (million instructions per second) "supercomputer" range. In addition to the core board offering, the processor is also being offered in an application development system for a single- quantity price of **$28,500.** Additionally, a development software package, which enables users to create custom algorithms for use with the core board, is available for **$13,900**

COMDEX-BOUND FLIGHTS FROM SFO BOOKED SOLID NOV 11

-- Those who have yet to book reservations for a flight to **Comdex** from San Francisco or Oakland airports for Sunday, **November 11,** may find themselves taking a train or bus. All direct flights from San Francisco to Las Vegas on the day before Comdex opens are booked solid; a few seats by way of Los Angeles are available but a one-way ticket can cost up to **$400.**

Hotel reservations in the glittery city during Comdex are also locked up. All hotels on the computers systems accessed by travel agents are showing full houses on Sunday, November 11. The only available rooms are in the smaller hotels outside the immediate area of the convention center or those for which reservations are being made through the Interface Group, the show sponsors.

Every year the task of finding a plane seat or a hotel bed during Las Vegas' biggest convention become more arduous, with most show-goers increasingly forced to book reservations for their travel to the show a year in advance.

UK: SHAREWARE MARKETING INTROS FLAT-RATE BBS SERVICE

-- After several months of marketing its online shareware service, from a 10 pence -per-minute charge to a flat-rate annual charge of UKP 70.

According to Shareware Marketing's Managing Director, Steve Lee, the change in charging structure costs much less to administer, and allows each user to download up to 360K of compressed program data every day.

"Previously we used to allow users to download as much of our shareware and public domain software as they liked. The new scheme allows users to pay a flat rate and grab as much shareware - up to a standard disk full a day - as they want,".

"If users want to download more than 360K a day, then they simply take out another block subscription. It's as simple as that," he added.

According to Lee, the Shareware Marketing BBS currently has around 250 subscribers, a figure he hopes that the flat rate fee system will increase.

Shareware Marketing is a mail order supplier of shareware and public domain software. The company's BBS, allows subscribers to download shareware directly at any time, with online charges billed to most major credit cards.

FUJITSU TO OFFER PALMTOP COMPUTER

-- Fujitsu has decided to enter the palmtop computer market, according to the Business & Technology paper.

The industrial paper reports that the computer firm has already started to develop a small personal computer for business. The report says the machine is small enough to fit into the palm of a hand. Despite its being half the size of a current book-sized computer, the Fujitsu palmtop will have a QWERTY-type standard keyboard, and will be compatible with FMR personal computers, the paper says. Fujitsu is aiming to simplify the functions by adopting an IC (integrated circuit) card containing application programs, according to the paper.

Fujitsu will start trial sales by year's end, and intends to launch the palmtop into the market next year at the price below 100,000 yen ($670).

In the palmtop computer arena, while keyboard-type palmtop computers, such as Atari Portfolio, are available in the U.S., there is only Sony's PalmTop computer with a pen-sensitive screen in Japan. From the viewpoint of easy handling, Fujitsu is negative about the pen-sensitive method, judging it is better to operate on a keyboard, the paper reports.

UK: SHARP LAUNCHES MULTI-FUNCTION ORGANISERS

-- Following on from last year's launch of the IQ personal organiser - known as the Wizard in the US - Sharp has launched two new low-end organisers, the ZQ-2250 and ZQ-5200 featuring, respectively, 32 and 64K of RAM.

The ZQ-2250 has seven built-in functions including a calendar, scheduler, phone directory, memo

pad and clock/calculator. The 5200 has the same features, but a 'do list,' time/expense manager, world clock, PC-Link and optional printer functions as well.

Both units feature raise Qwerty-style keyboards and wide-angle viewing LCD displays. The 2250 has a 12 digit by 4 line display, while the 5200 has a 16 digit by 8 line display. UK pricing has been set at UKP 69-99 for the 2250 and UKP 129-99 for the 5200.

SEIKO-EPSON TO DIVIDE R&D IN THE U.S.

-- Seiko-Epson has decided to establish R&D (research and development) centers in the U.S., Europe, and Japan in order to boost its personal computer business, according to The Japan Industrial Journal paper.

As an initial step, it will delegate about 100 engineers to its Hirooka office in Nagano prefecture of Japan and its Technology Center in San Jose, California, this year, the paper says. Technology Center is to develop a 32-bit personal computer based on EISA (extended industry standard architecture), while the Hirooka office will lay emphasis on development of book-sized computers, the paper reports.

The paper says that the firm will announce a 32-bit book-sized computer in the near future and develop a 40-megabyte hard disk model of a book-sized computer next year.

Though it is uncertain at which site Seiko-Epson will establish its European R&D foothold, the paper expects it will consolidate development and sales arrangements for desktop personal computers in the Netherlands by 1992, timing the moves with the economic unification of the EC (European Community).

Seiko-Epson has been marketing personal computers compatible with Japan's defacto standard NEC PC-9801 series in Japan and IBM-compatible machines in the U.S. and Europe, but it has recently fallen behind in the development of personal computers. By establishing the "tripolar" R&D system, it hopes to widen the variety of its personal computer lineup and do its best to market advanced personal computers oriented for each region, the paper says.

TANDY INTRODUCES HOME COMPUTER

-- Using a plush New York City apartment as a backdrop, Tandy Corporation introduced the Tandy 1000 RL computer, a system designed to be used in the home. The 1000 RL is available immediately at authorized Tandy dealers and comes in four models with prices ranging from $749.90 to $1,299.90.

Introducing the new system, Tandy CEO John V. Roach stressed that the 1000 RL is the first Tandy computer designed especially for the home and that it should be looked at as a combination of software and hardware together rather than as simply a piece of equipment. Roach told the assemblage that the new system user interface is based on a greatly enhanced version of the existing Tandy DeskMate user

interface. The enhancements to the system include the bundling of 24 built-in programs, all accessible through DeskMate, to carry out activities which Tandy has determined, through focus groups, are those most desired in a home system.

Roach dwelt on the functionality and user interface, along with cost, in his remarks. "The Tandy 1000 RL is an entirely new generation of home computer -- one that helps manage everyday home tasks, is easy to use and affordable. Computers have been accepted in the workplace for years, but not in the home because they've been too hard to use and too expensive. Finally, we've solved those problems."

When speaking of the ease of use of the new system, Roach said: "The Tandy 1000 RL is so easy to use that it guarantees success. Even the novice user can be productive with the 'RL' after just 15 minutes." Roach explained what he meant by guaranteeing success, saying: "We have spent considerable time training our entire Radio Shack staff on all aspects of the 1000 RL. We expect customers to have little difficulty using the systems right from the start. If they do, however, the staff of their local store will both be able to answer questions and arrange training classes. If the question turns out to be something beyond the store personnel's knowledge they will have a hot line in Fort Worth to question -- and the hot line will be up during US store business hours. Additionally, clients with modems will be able to go right in to a Tandy technical information center in Fort Worth for answers. Finally, if we ever have to give up on a user -- and we don't expect to -- we'll take the system back."

Demonstrating the machine at its introduction, Howard Elias, Tandy vice president of computer merchandising, pointed out that the system does not contain a fan. "We use a very low power consumption unit and have utilized sophisticated sleep processing to shut down the system itself and an installed hard disk. In sleep mode, the unit uses about the same power as a clock radio with the radio off. We did this so we would not have to use a fan. We feel that the machine should be left on all the time and did not want noise to deterusers from leaving it on."

Elias then took those present through the 24 built-in programs. The programs are divided into four categories, DeskMate Productivity Programs, Personal Solutions, Kitchen Solutions and Financial Solutions. The last 3 of the 4 categories are all grouped together on a DeskMate screen called Home Organizer.

As Elias went through the applications, which include checkbook recordkeeping, checkbook balancing, diary, expense analysis, travel planning, home inventory, cookbook, grocery list and menu planner, he called attention to the fact that all applications were graphically oriented and were rather intuitive to use.

Elias also said that purchasers can utilize all standard MS-DOS software with the 1000 RL and that

the DeskMate-compatible versions of Lotus 1-2-3 and Symantic's Q&A fit in most comfortably with the user interface.

Roach was obviously ready with an answer when asked for technical information about the system, saying: "We deliberately did not give out technical information about the unit as part of the presentation. Our perspective is that consumers don't ask about the hardware when looking at microwaves, VCRs and other appliances. They are interested in what these systems do rather than how they do it. We view this system as the first home information appliance and feel that it should be looked at in this manner."

Roach also pointed out that the 1000 RL is the first personal computer to receive the Good Housekeeping Seal. Roach then brought in Elias who described the system as an 8086 unit with 512K of random access memory (RAM) and Tandy enhanced graphics. Ed Juge, Tandy director of marketing information, later demonstrated that Microsoft Works, a program bundled with IBM's PS/1 loads slightly faster on the 8086-based 1000 RL than on the 80286-based PS/1. Juge attributed the closeness in speed to the fact that "our enhanced graphics adapter, while close in quality to IBM's VGA on the PS/1, operates much faster and overcomes the speed differences between the two chips. The point is not that we're slightly faster but that you have to look at the overall question of which system accomplishes the task better rather than at the isolated technical issues."

The lowest priced model, at $749.90, contains a 3 1/2" 720K floppy drive and a monochrome monitor. The same unit with a color monitor has a suggested price of $899.90. The monochrome monitor version with an additional 20MB (megabyte) fixed disk is listed at $1,149.90 while the top of the line 20MB color unit hasa suggested price of $1,299.90.

SHARP TO LAUNCH MORE PRODUCT INTO HAND-HELD ORGANIZER MARKET

-- Sharp will launch a wider variety of electronic organizers this fall in order to compete against its archrival Casio Computer in the hand-held organizer market.

For the overseas market, Sharp will introduce two new organizers, the ZQ-5000 and the ZQ-2000, each with a standard QWERTY-type keyboard. The ZQ-5000 will have the same functions as the current Wizard, including an appointment diary, a phone directory, and a notepad function as well as new functions such as an expenditure management function. ZQ-2000 will be a simplified version of the ZQ-5000 and will be positioned as the entry-level organizer. Neither new organizer will accomodate an IC (integrated circuit) card though Wizard does, but cabling through an RS-232C port will allow data to be transmitted into another hand-held organizer or a personal computer.

Sharp will first sell English versions of these organizers. Plans call for both a French-version and a

German-version, each to be sold through Sharp's local sales subsidiaries. Sharp is planning to set the price of the ZQ-5000 at less than $399, the price of the Wizard.

Meanwhile, Sharp will launch a high-end model larger than its current flagship PA-8600 for the domestic market in Japan. The display, twice as large as the display on the PZ-8600, will be a pen-sensitive screen capable of storing images such as drawings and maps, a feature not found on the PA-8600. Sharp is expected to price the new organizer about 50,000 yen ($540).

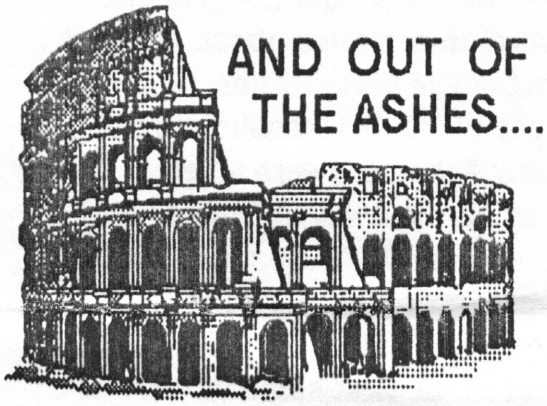
Last year Casio sold about 1.8 million units and Sharp sold about 700,000 units in the overseas electronic organizer market. On the other hand, Sharp delivered about 1.3 million units and Casio about 1.2 million in the Japanese market. With the product line expansion, Sharp is eager to increase potential demand for electronic organizers to increase the company's market share.

ENGLAND: SHARP FORMS IQ (WIZARD) USER'S CLUB

-- Sharp Electronics has formed the IQ User's club, a free-to- join group for users of Sharp's IQ pocket agenda device. Outside of the UK, the IQ is perhaps better-known as the Sharp Wizard.

To qualify for free membership of the IQ User's Club, users of the IQ must fill in their registration card. According to Sharp, club members are eligible to enter a free monthly draw with cash prizes to the value of the IQ modem they purchased.

In the UK, two versions of the IQ are available, the Model 7000 at UKP 149-99 and the Model 7200 at UKP 179-99.



No, I'm not talking about the legendary Phoenix. I,m talking about the newest newsletter exchange that has appeared in our mailbox. Yes, out of the ashes of the Boston Computer Society has risen the mighty **NEW ENGLAND QL USER GROUP**.

This group is a reconstitution of the B.C.S. but dedicated solely to the QL. This may be the only QL user group left in North America. The editor is none other than **Peter Hale** himself. Peter was the editor of the B.C.S. and did a fine job putting that N/L out. **Joyce Blaho** is the newsletter Liason as she was also with the other group. The new group boasts a paid up membership of **22** members, which could as well be larger than most groups that support the whole range of Sinclair computers. Their N/L will be printed 6 times per year and a annual membership is only **$10.00** in North America.

If you would like more info on this new group and to see just what their newsletter has, you can contact them at:

NEW ENGLAND QL USER GROUP
POST OFFICE BOX 8763
BOSTON, MA 02114-8763

So, if you have a QL, and it's not holding open a door, dust it off and join the NEQLUS today. You might be surprised as to what that ole doorstop can still do.

GOOD NEWS AND BAD NEWS

Clackamas Country T/S group reports in their newsletter that the summer has unloaded some good news/ bad news on them. First lets get the frowns out of the way.

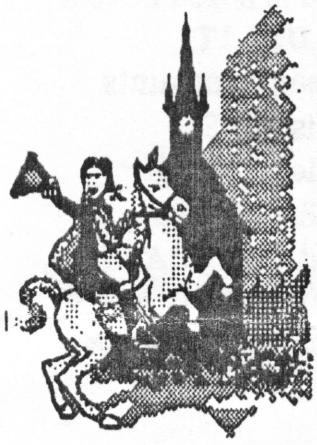
RMG Enterprises reports that as of Aug.1, 1990, the TOLL-FREE order that was installed for the use of customers will no longer be in service. Reasons given for the disconnection were: LACK OF USE, MISUSE, and TOO MANY WRONG NUMBERS. However the 24 hour FAX line at **(503) 655-4116** is still in operation as well as Rods same phone number.

Now the last frown. According to the SYSOP of **"THE BULL PEN BBS"**, the home of the **"SINCLAIR USERS UNITE! ECHO**, there is going to be a wide ranging sweep of the echo mail system and there will be a lot of **ECHOS** dropped for lack of use. The Sinclair Echo is the prime target. The **SINCLAIR ECHO** was even made available to the **SNUG** organization for use as a clearing house. But, for ever reasons, politics or whatever, they declined to take advantage of this powerful and FREE resourse. What it boils down to is if you have a modem, **LEARN TO USE IT**. Otherwise lets not hear complaints when what you had is GONE.

Now for some smiles. The new addition of the **PC SEG** (Special Education Group) that the **C/CATS group** has formed, had about **11** hardy brave souls show up. The new group have decided to have their meets after their monthly Timex meetings due to the fact that they can only get the meeting spot once each month. They hope that this could prove to be a benifit to both parts of the club and may pick up some members who are not and never have been T/S users or maybe even some Sinclair users who are looking at PC clones. Either way, they can gain support and a broader base. **GOTTA DO WHAT YA GOTTA DO.**

Rod Gowen has added to a large catalog of software and hardware, a new line of products. **RMG** has added a **PC SHAREWARE LIBRARY.** That's right folks, PC software. RMG is growing at an average of **3 megabytes** per week. with over 50 megabytes already in the library, it will only continue to grow. The cost will about **$3.00 per disk**. If you like the program after you use it. then you pay the author. RMG is not selling the software, only charging a small copy fee. According to **RMG,** sales are really down this year, over

80% lower than the same period last year. Without the PC clone sales **RMG** would most likly follow the path of most other TS dealers by now. **Support is the KEY word.**



BEWARE OF NEW VIRUS LURKING ON SEVERAL BBS BOARDS

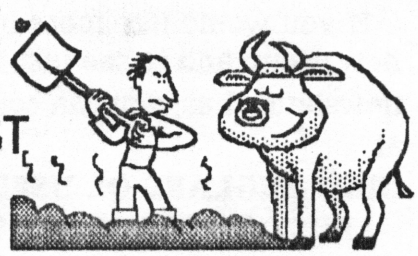
The **Aug. issue of PACC TALK** newsletter has issued a warning by **Vishnu K. Agrawala** that a new virus has surfaced. The author of **PKZip and PKUnzip, Mr. Phil Katz**, has sent out a warning on many BBS boards that a file purported to be **version 1.2 of PKZIP and PKUNZIP are fakes.**

The latest genuine version of Both zip files are **1.10** and are usually found under the name **PKZ110.ZIP.**

Don't be fooled and wind up with a virus that does nothing more than destroys everything. Thanks **PACC TALK** for passing this along.

MC400 UPDATE

Chris Fenn reports that the batteries in his MC400 lasted for more than 90+ days with light to medium use. NOT BAD.



THE HONEST TRUTH

by.....Ralph Hammer

As we finish off the last of summer, our thoughts linger on to what we all should have done, rather than what we ended up doing. Oh well, maybe we'll do it the right way next year.

Not too much news to pass on about the Timex-Sinclair community. It seemed evryone was just relaxing away. No problem, things will be in the swing real soon, I can just feel it in my bones.

We do have some things to look forward to, such as **Larry Kenny's DTP**. We of course realize that Larry is a farmer first, and a T/S Hobbier second. Still waiting, Larry. There have also been a lot of programs added to the Public Domain Libraries. Check to see if there is one close to you, and support them.

Comdex is fast approaching to us here in Las Vegas, as Steve has mentioned. I'm making my plans to attend at least one day of it, just to see all the hoopla. What with the ever-changing world of computers, and the ever-growing attendance each year, it'd be fun just to see what goes on.

I am enclosing a program on the last page this month, but I haven't decided whether it's for a **1000,**

2068. or OL. I just might surprise myself. Whichever it is, I hope you find it useful and enjoyable.

Till next month, keep on computin'.

Well, summer's over and I'll bet that nothing got done like was planned. Don't worry, I didn't get anything finished I had planned on myself. With the **HOT** desert temps, All I wanted to do was sit in the air conditioned house and think about what to do.

As you can see I did manage to get out the newsletters and even managed a 12 page issue this month. Lots of things are going on within the computer world lately as far as new systems and dropping of prices goes. All this is in preperation of the big **COMDEX Show** that is about to invade our town on the 12th. of November. The estimated attendence this year is expected to reach an all time high and that will cause headaches galore. The town is already busting at the seams and another **120,000** will make it impossible to find a motel/hotel room and even a parking spot. But to see **COMDEX** is well worth the headaches and sore feet.

I had a nice chat with **Rod Gowen** last week and was told that he has over **60 megs. of shareware** in his library to distribute to all interested. He also mentioned that **a printed copy can be obtained by sending fifty cents in postage to RMG for that catalog or for a 5.25 " floppy of the same catalog send a disk mailer and fifty cents postage.** Rod stated that he has loads of spreadsheets, databases, utilities and other programs. One thing he states he will **not** carry are games. Games can be had everywhere, These programs are for the serious user not game players. **Joe Knopp, owner of Nellis Computers,** told my wife when she bought her 386 from him, " **If you want to play games, go out and buy an nintendo"**. And he's right so we did. Rod also said that he has a new catalog coming out soon listing some of the IBM compatable sysytems that can be purchased through **RMG**. Check him out and see what he has to offer. I bet he can save you some greens. Rod will also continue to support the Timex line and rumor has it that he is about to release to the Sinclair world, the programs that he purchased from **Zebra Systems**. Remember that if you don't support the few remaining dealers who still have Timex related products, there won't be any left, then what?

THINK ABOUT THAT ?

TIMEX - SINCLAIR

PROGRAM PAGE

```
  20 REM --SYNC 4:1
  30 REM --COPIED
  40 DIM R$(9,3)
  50 FOR A=1 TO 9
  60 FOR B=1 TO 3
  70 LET R$(A,B)=CHR$ (65+A*3+B)
  80 NEXT B
  90 NEXT A
 100 LET R$(9,3)="#"
 110 FOR I=1 TO 30
 120 LET A=INT (RND*9)+1
 130 LET B=INT (RND*3)+1
 140 LET T$=R$(A,B)
 150 LET R$(A,B)=R$(5,2)
 160 LET R$(5,2)=T$
 170 NEXT I
 180 FOR I=1 TO 3
 190 PRINT TAB 4;"ROW 1";TAB 13;
"ROW 2";TAB 22;"ROW 3",,
 200 FOR A=1 TO 9
 210 PRINT TAB 6;
 220 FOR B=1 TO 3
 230 PRINT R$(A,B);" ###### ";
 240 NEXT B
 250 PRINT
 260 NEXT A
 270 PRINT "ENTER THE ROW CONTAI
NING YOUR   LETTER."
 280 INPUT C
 290 IF C<1 OR C>3 THEN GO TO 28
0
 300 IF I=3 THEN GO TO 470
 310 FOR A=1 TO 9
 320 LET T$=R$(A,2)
 330 LET R$(A,2)=R$(A,C)
 340 LET R$(A,C)=T$
 350 NEXT A
 360 LET T$=""
 370 FOR A=1 TO 3
 380 FOR B=1 TO 9
 390 LET T$=T$+R$(B,A)
 400 NEXT B
 410 NEXT A
 420 FOR A=1 TO 9
 430 FOR B=1 TO 3
 440 LET R$(A,B)=T$(A*3+B-3)
 450 NEXT B
 460 NEXT A
 470 CLS
 480 NEXT I
 490 PRINT ,,"I MYSTICALLY PERCI
EVE YOUR","LETTER TO BE ";R$(5,C
);",,"
 500 PRINT ,,"WOULD YOU LIKE TO
TEST MY MAGIC ABILITIES AGAIN?(Y
/N)"
 510 INPUT T$
 520 CLS
 530 IF (T$+"#")(1)="Y" THEN GO
TO 180
```

```
   2 GO TO 9000
   8 BEEP .1,10: BEEP .1,15: BEE
P .1,19: BEEP .2,22: BEEP .1,19:
 BEEP 1,22
1000 BORDER 1
1001 LET delay=56
1002 PAPER 2
1003 INK 6
1004 CLS
1010 GO SUB 1490
1024 INK 0
1025 PRINT "          COUNTDOWN TI
MER          "
1027 GO SUB 1490
1040 PRINT
1050 PRINT "THIS TIMER IS SET FO
R ";
1055 FLASH 1: PRINT "60"
1056 FLASH 0
1060 PRINT "SECONDS. TO CHANGE T
HAT SETTING,PRESS ""C"" IMMEDIAT
ELY, ENTER THENEW SETTING, AND P
RESS RETURN."
1082 PRINT
1084 PRINT "To return to this sc
reen, press the ""m"" key at any
 time the tim-er is operating."
1087 PRINT
1088 PRINT "To start, or to rest
art the tim-er at the current se
tting while running, press any o
ther key."
1090 PAUSE 0
1100 IF INKEY$="c" THEN GO TO 11
30
1110 LET z=60
1120 CLS
1125 GO TO 1150
1130 INPUT "How many seconds?";z
1135 CLS
1140 GO TO 1150
1150 LET delay=56: BORDER 1: INK
 5: PAPER 1: CLS
1180 LET x=z
1190 PRINT INK 1;AT 0,0;"     ";A
T 0,0;x
1200 RANDOMIZE USR 61440
1205 IF x<=0 AND x>=-10 THEN GO
SUB 1300
1208 IF x<-10 THEN LET delay=56
1210 PAUSE delay
1215 IF INKEY$="m" THEN GO TO 57
1217 IF INKEY$<>"" THEN GO TO 11
1220 LET x=x-1: GO TO 1190
1300 LET delay=10
1302 BORDER 6
1305 FOR n=1 TO 11: BEEP .01,40:
 BEEP .01,50: NEXT n
1320 RETURN
1490 FOR N=1 TO 4
1492 FOR M=0 TO 7
1494 INK M
1496 PRINT "▇";
1497 NEXT M
1498 NEXT N
1499 RETURN
8999 STOP
9000 CLEAR 61339
9010 RESTORE
9020 FOR n=61440 TO 61568
9030 READ q: POKE n,q
9040 NEXT n
9050 GO TO 3
9900 DATA 0,0,0,0,0,0,0,0,33,0,6
5,34,2,240,34,0,240,33,64,88,34,
6,240,34,4,240,22,6,14,4,42,0,24
0,126,6,8
9901 DATA 7,245,210,55,240,42,6,
240,126,246,32,119,35,34,6,240,1
95,66,240,42,6,240,126,230,223,1
19,35,34,6,240
9902 DATA 241,5,194,36,240,33,0,
240,52,13,194,30,240,197,213,229
,42,4,240,17,32,0,25,235,42,4,24
0,1,96,0
9903 DATA 237,176,42,4,240,17,96
,0,25,34,4,240,34,6,240,225,209,
193,42,2,240,36,34,0,240,34,2,24
0,21,194,28,240,201
```